

INTERNATIONAL SEARCH REPORT

MUR-8410

International Application No.

PCT/G8 98/00534

A. CLASSIFICATION OF SUBJECT MATTER

IPC 6 E21817/10 E21817/22

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 6 E218

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	<p>GB 2 288 198 A (HYDRILL COMPANY) 11 October 1995</p> <p>see page 2, line 27 - line 33</p> <p>see page 3, line 15 - page 4, line 2</p> <p>see page 5, line 31 - page 6, line 9</p> <p>see page 6, line 15 - line 16</p> <p>see figures 1.3.5</p>	1-16
X	<p>US 5 247 990 A (SUDOL) 28 September 1993</p> <p>see column 3, line 41 - line 44</p> <p>see column 2, line 61 - column 3, line 15</p> <p>see figures 2-15</p>	1, 2, 5, 8-11, 13-16

☒ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

Special categories of cited documents

- "A" document defining the general state of the art which is not considered to be of particular relevance
- "E" earlier document but published on or after the international filing date
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- "O" document referring to an oral disclosure, use, exhibition or other means
- "P" document published prior to the international filing date but later than the priority date claimed

- "T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
- "X" document of particular relevance: the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
- "Y" document of particular relevance: the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art
- "S" document member of the same patent family

Date of the actual completion of the international search

12 June 1998

Date of mailing of the international search report

19/06/1998

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INTERNATIONAL SEARCH REPORT

Total Application No

PCT/GB 98/00554

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT		
Category	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	<p>US 4 938 299 A (JELSMAN) 3 July 1990</p> <p>see column 4, line 22 - line 31 see column 6, line 25 - line 27; figures 1,2</p>	<p>1,2, 6-11, 13-16</p>
X	<p>US 3 320 004 A (GARRETT) 16 May 1967</p> <p>see column 2, line 35 - line 44 see column 2, line 50 - line 53</p>	<p>1,2, 5-11,13, 14,16</p>
X	<p>US 4 796 670 A (RUSSEL) 10 January 1989</p> <p>see column 3, line 46 - line 63 see column 4, line 28 - line 44 see column 5, line 60 - column 6, line 2</p>	<p>1-10,12, 13,16</p>
X	<p>US 2 166 116 A (BETTIS) 18 July 1939</p> <p>see page 1, left-hand column, line 51 - line 53 see page 1, right-hand column, line 21 - line 23</p>	<p>1,2,5, 8-11,13, 14,16</p>
A ✓	<p>GB 2 226 520 A (BAKER HUGHES INCORPORATED) 4 July 1990 see the whole document</p>	<p>1,2</p>
A ✓	<p>GB 2 285 649 A (DOWNHOLE PRODUCTS (UK) LIMITED) 19 July 1995 see the whole document</p>	<p>1,8-16</p>

INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No.

PCT/GB 98/00554

Patent document cited in search report		Publication date	Patent family members:	Publication date
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✓ US 5247990	A	28-09-1993	CA 2091547 A	13-09-1993
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✓ US 3320004	A	16-05-1967	NONE	
✓ US 4796670	A	10-01-1989	AU 2374828 A FR 2621953 A GB 2211225 A,B	20-04-1989 21-04-1989 28-06-1989
✓ US 2166116	A	18-07-1939	NONE	
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